REMARKS

The Office Action dated February 1, 2005, has been received and carefully noted. The above amendments and the following remarks are submitted as a full and complete response thereto.

By this Amendment, claims 2, 5, 8 and 9 have been canceled and claims 1, 6, 7 and 10 have been amended. No new matter is presented. Support for the amendments to the claims can be found in at least paragraph [0027] of the specification as originally filed. Claims 1, 3, 4, 6, 7 and 10 are pending and respectfully submitted for consideration.

Claim 7 was objected to for a minor informality. As a result of the amendments to claim 7, the objection is now rendered moot. The Applicant submits that all claims are in compliance with U.S. patent practice.

Claims 1, 2 and 4-6 were rejected under 35 U.S.C. § 102(b) as being anticipated by Kwok et al. (U.S. Patent No. 6,044,844, "Kwok"). As noted above, claims 2 and 5 have been canceled. The Applicant respectfully submits that claims 1, 4 and 6 recite subject matter that is neither disclosed nor suggested by Kwok. Claims 4 and 6 depend from claim 1.

Claim 1 recites that a gap between a top of the linear projection and a part of the inner wall opposite to the linear projection is in a range from 25 % to 30 % of the distance from a part of the inner wall on which the linear projection is formed to the part of the inner wall opposite to the linear projection. The Office Action took the position that Fig. 5 of Kwok discloses a gap between a top of the linear projection and a part of

the inner wall opposite the linear projection being in a range from 5 % to 30 % of the distance from the part of the inner wall on which the linear projection is formed to the part opposite the projection. See page 3, lines 2-5 of the Office Action. Kwok discloses a tube including an inner wall defining a passageway through which fluid can pass, and one or more inwardly directed ribs depending from the inner wall. See column 1, line 66 to column 2, line 2 of Kwok. However, there is no disclosure or suggestion in Kwok of the dimensional relationship between the inwardly directed ribs and the inner wall. In particular, there are no dimensions or relative ranges disclosed between the ribs and the inner wall in Kwok. As such, there is no support in Kwok for the rejection of claim 1. As Kwok fails to disclose or suggest at least a gap between a top of the linear projection and a part of the inner wall opposite to the linear projection is in a range from 25 % to 30 % of the distance of a part of the inner wall on which the linear projection is formed to the part of the inner wall opposite to the linear projection, as recited in claim 1, the reference fails to disclose or suggest each and every feature of the claimed invention.

According to U.S. patent practice, a reference must teach every element of a claim in order to properly anticipate the claim under 35 U.S.C. §102. In addition, "[a] claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." Verdegaal Bros. v. Union Oil Co. of California, 814 F.2d 628,631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). "Every element of the claimed invention must be arranged as in the claim . . . . . [t]he identical invention must be shown in as complete detail as is contained in the patent claim." Richardson v. Suzuki Motor Co., 868 F.2d 1226, 1236 (Fed. Cir. 1989) (emphasis added). Accordingly, Kwok does not anticipate claim 1, nor is claim 1

obvious in view of Kwok. As such, the Applicant submits that claim 1 is allowable over the cited art.

Claim 3 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Kwok in view of Seckel (U.S. Patent No. 4,867,485). Claim 3 depends from claim 1. The Office Action acknowledged that Kwok does not disclose linear projections having a flat surface at the top. Seckel was cited for curing this deficiency. The Applicant respectfully submits that the combination of Kwok and Seckel fails to disclose or suggest the claimed features of the invention.

As discussed above, claim 1, from which claim 3 depends, recites a gap between a top of the linear projection and a part of the inner wall opposite to the linear projection is in a range from 25 % to 30 % of the distance from a part of the inner wall on which the linear projection is formed to the part of the inner wall opposite to the linear projection. Kwok fails to disclose or suggest this feature. Seckel fails to cure the deficiencies in Kwok. As such, the combination of Kwok and Seckel fails to disclose or suggest each and every feature of the invention as recited in claim 1, and therefore, dependent claim 3.

Claims 7-10 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Kwok in view of Duncan (U.S. Patent No. 4,257,422). As noted above, claims 8 and 9 have been canceled. Claim 7 has been rewritten in independent form. Claim 10 depends from claim 7. The Applicant respectfully submits that claims 7 and 10 recite subject matter that is neither disclosed nor suggested by the combination of Kwok and Duncan.

Claim 7 recites that a gap between the tops of the linear projection is in a range from 25 % to 30 % of the distance between parts of the inner wall on which the linear projections are respectively formed. The Office Action took the position that Kwok discloses projections being spaced 5 % to 30 % from the wall opposite to the projection. See page 4, lines 15 to 16 of the Office Action. As discussed above, however, Kwok does not disclose or suggest the dimensional relationship between the ribs and the inner wall defining the passageway. As such, Kwok fails to disclose at least the feature of a gap between the tops of the linear projections being in a range from 25 % to 30 % of the distance between parts of the inner wall on which the linear projections are respectively formed. As such, it would not have been obvious to combine the teachings of Kwok with Duncan to teach or suggest all of the claimed features of the invention. As such, the combination of Kwok and Duncan fails to disclose or suggest each and every feature of the invention as recited in claim 7.

Under U.S. patent practice, the PTO has the burden under §103 to establish a *prima facie* case of obviousness. In re Fine, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). Both the case law of the Federal Circuit and the PTO itself have made clear that where a modification must be made to the prior art to reject or invalidate a claim under §103, there must be a showing of proper motivation to do so. The mere fact that a prior art reference could arguably be modified to meet the claim is insufficient to establish obviousness. The PTO can satisfy this burden only by showing some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead that individual to combine the relevant teachings of the references. Id. In order to establish obviousness, there must be a suggestion or motivation in the

reference to do so. See also In re Gordon, 221 USPQ 1125, 1127 (Fed. Cir. 1984) (prior art could not be turned upside down without motivation to do so); In re Rouffet, 149 F.3d 1350 (Fed. Cir. 1998); In re Dembiczak, 175 F.3d 994 (Fed. Cir. 1999); In re Lee, 277 F.3d 1338 (Fed. Cir. 2002). The Office Action restates the advantages of the present invention to justify the combination of references. There is, however, nothing in the applied references to evidence the desirability of these advantages in the disclosed structure.

In view of the above, the Applicant respectfully submits that the cited references do not support a *prima facie* case of obviousness for purposes of a rejection of claims 3 and 7 and 10 under 35 U.S.C. §103 as Kwok, Seckel, and Duncan either singly, or in combination, do not disclose or suggest each and every feature of the claimed invention.

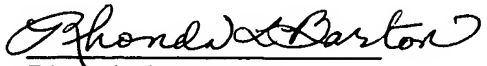
Claims 3, 4 and 6 depend from claim 1 and claim 10 depends from claim 7. The Applicant respectfully submits that these dependent claims are allowable at least because of their dependency from allowable base claims 1 and 7. Accordingly, the Applicant respectfully requests withdrawal of the objection and rejections, allowance of claims 1, 3, 4, 6, 7 and 10 and the prompt issuance of a Notice of Allowability.

Should the Examiner believe anything further is desirable in order to place this application in better condition for allowance, the Examiner is requested to contact the undersigned at the telephone number listed below.

In the event this paper is not considered to be timely filed, the Applicant respectfully petitions for an appropriate extension of time. Any fees for such an extension, together with any additional fees that may be due with respect to this paper,

may be charged to counsel's Deposit Account No. 01-2300, **referencing Attorney Dkt. No. 103213-00060.**

Respectfully submitted,



Rhonda L. Barton
Attorney for Applicant
Registration No. 47,271

Customer No. 004372
ARENT FOX PLLC
1050 Connecticut Avenue, N.W., Suite 400
Washington, D.C. 20036-5339
Tel: (202) 857-6000
Fax: (202) 638-4810

CMM/RLB/elz

TECH/297385.1